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From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

WOLF GREENFIELD & SACKS, P.C.
Attn. Waller, Patrick R.H.
600 Atlantic Avenue
Boston, Massachusetts 02210
UNITED STATES OF AMERICA

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

DOCKETED
AUG 26 2005

(PCT Rule 44.1)

Applicant's or agent's file reference		Date of mailing (day/month/year)
A0852.70000 W0000		22/08/2005
Confirmation	<input type="checkbox"/>	FOR FURTHER ACTION See paragraphs 1 and 4 below
Docketing	<input checked="" type="checkbox"/>	
International application No.	International filing date (day/month/year)	
PCT/US2005/007519	10-22-05 (2)	03/03/2005
Applicant	11-22-05	
ADRA, Chaker N.		

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders


Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority	Authorized officer
 European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Marilú Masserut

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for International preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference A0852.70000	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2005/007519	International filing date (day/month/year) 03/03/2005	(Earliest) Priority Date (day/month/year) 03/03/2004
Applicant ADRA, Chaker N.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☒ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2005/007519

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. type of material
 - ☒ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☒ in written format
 - ☒ in computer readable form
 - c. time of filing/furnishing
 - ☒ contained in the international application as filed
 - ☐ filed together with the international application in computer readable form
 - ☒ furnished subsequently to this Authority for the purpose of search
2. ☒ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/68 G01N33/53

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12Q G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, MEDLINE, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/038252 A1 (SUGITA YUJI ET AL) 26 February 2004 (2004-02-26) paragraphs '0011! - '0018!; claim 1 paragraphs '0023! - '0037! paragraphs '0012!, '0013! -----	1-71
X	WO 99/10536 A (YALE UNIVERSITY; YERRAMILLI, SUBRAHMANYAM, V; PRASHAR, YATINDRA; NEWBU) 4 March 1999 (1999-03-04) examples 5,6,10 -----	1-71
X	WO 02/33122 A (GENOX RESEARCH, INC; JAPAN AS REPRESENTED BY GENERAL DIRECTOR OF NATIO) 25 April 2002 (2002-04-25) abstract ----- -/--	1-71

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

12 August 2005

Date of mailing of the international search report

22/08/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Reuter, U

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/069196 A1 (LEVINSON DOUGLAS ADAM ET AL) 10 April 2003 (2003-04-10) abstract paragraphs '0340!, '0733!; example 14 -----	1-71
X	WO 97/39148 A (CEDARS-SINAI MEDICAL CENTER) 23 October 1997 (1997-10-23) example 1 -----	1-71
A	WO 02/089829 A (INNOVENTUS PROJECT AB; VENGE, PER) 14 November 2002 (2002-11-14) pages 2-4 -----	1-71

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 61-69 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2004038252	A1	26-02-2004	WO 0224903 A1	28-03-2002
WO 9910536	A	04-03-1999	AU 9200398 A	16-03-1999
			US 2003082512 A1	01-05-2003
			WO 9910536 A1	04-03-1999
			US 6365352 B1	02-04-2002
			US 2005084896 A1	21-04-2005
WO 0233122	A	25-04-2002	WO 0233069 A1	25-04-2002
			WO 0233122 A1	25-04-2002
			US 2004058351 A1	25-03-2004
			US 2004053282 A1	18-03-2004
US 2003069196	A1	10-04-2003	US 6455685 B1	24-09-2002
			US 6204371 B1	20-03-2001
			US 5721351 A	24-02-1998
			US 6066322 A	23-05-2000
			US 2005119209 A1	02-06-2005
			AU 5309600 A	18-12-2000
			WO 0073498 A1	07-12-2000
			US 2003158399 A1	21-08-2003
			US 6414117 B1	02-07-2002
			US 6562343 B1	13-05-2003
			US 6084083 A	04-07-2000
			US 6288218 B1	11-09-2001
			US 6156887 A	05-12-2000
			AU 718245 B2	13-04-2000
			AU 5178396 A	23-09-1996
			CA 2214589 A1	12-09-1996
			EP 0813538 A1	29-12-1997
			JP 11501807 T	16-02-1999
			WO 9627603 A1	12-09-1996
			US 6066498 A	23-05-2000
WO 9739148	A	23-10-1997	US 5916748 A	29-06-1999
			AU 2457197 A	07-11-1997
			AU 2991697 A	07-11-1997
			CA 2251567 A1	23-10-1997
			EP 0906573 A1	07-04-1999
			WO 9739148 A1	23-10-1997
			WO 9739356 A1	23-10-1997
			US 5874233 A	23-02-1999
			US 5932429 A	03-08-1999
WO 02089829	A	14-11-2002	WO 02089829 A2	14-11-2002

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference

see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US2005/007519

International filing date (day/month/year)

03.03.2005

Priority date (day/month/year)

03.03.2004

International Patent Classification (IPC) or both national classification and IPC

C12Q1/68, G01N33/53

Applicant

ADRA, Chaker N.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Reuter, U

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☒ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☒ in written format
 - ☒ in computer readable form
 - c. time of filing/furnishing:
 - ☒ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☒ furnished subsequently to this Authority for the purposes of search.
3. ☒ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
- ☒ claims Nos. 61-71

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 61-71 are so unclear that no meaningful opinion could be formed (*specify*):

see separate sheet

- ☒ the claims, or said claims Nos. 61-71 are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the whole application or for said claims Nos. 61-69 (in part)
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
- ☐ See separate sheet for further details

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	28-48
	No: Claims	1-27,49-60
Inventive step (IS)	Yes: Claims	
	No: Claims	1-60
Industrial applicability (IA)	Yes: Claims	1-60
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item III.

1 Clarity, Support and Disclosure (Art. 5 and 6 PCT)

- 1.1 A search report has been established based on the alleged effects of the compound/compositions of claims 61-69.
- 1.2 The application does not meet the requirements of Article 6 PCT, because claims 61-71 are not clear and not supported by the description. The matter for which protection is sought is not clearly defined. The claims relate to compounds and compositions that are defined by reference to a desirable characteristic or property, namely that they interact with a marker in an amount sufficient to treat a disease or that they alter a physiological property of a cell. The claims cover all compounds and compositions having this characteristic or property, whereas the application does not provide support within the meaning of Article 6 PCT or disclosure within the meaning of Article 5 PCT for any of said compounds or compositions. This leads also to a lack of clarity and support of claims 62 and 67, since it is unclear how the modulation of the activity or expression of a marker shall be performed. Thus claims 61-71 lack support and clarity (Article 6 PCT) and the application lacks support (Article 5 PCT). Consequently no opinion regarding the novelty, inventive step and industrial applicability of the subject matter of said claims has been formulated.

Re Item V.

2 Reference is made to the following documents:

- D1: US 2004/038252 A1 (SUGITA YUJI ET AL) 26 February 2004
D2: WO 99/10536 A (YALE UNIVERSITY; YERRAMILI, SUBRAHMANYAM, V; PRASHAR, YATINDRA; NEWBU) 4 March 1999
D3: WO 02/33122 A (GENOX RESEARCH, INC; JAPAN AS REPRESENTED BY GENERAL DIRECTOR OF NATIO) 25 April 2002
D4: US 2003/069196 A1 (LEVINSON DOUGLAS ADAM ET AL) 10 April 2003
D5: WO 97/39148 A (CEDARS-SINAI MEDICAL CENTER) 23 October 1997

3 Novelty and Inventive Step (Art. 33(2) and 33(3) PCT)

- 3.1 D1 discloses a method for diagnosing a non-neutrophil, granulocyte disorder (atopic dermatitis, par. 11-17), by comparing the expression level of a granulocyte selective marker (a gene expressed in eosinophils) of a subject with a reference (healthy person, claim 1) in order to diagnose a disorder. D1 also discloses the use of the marker gene in order to identify a compound that alters the expression of the gene (par. 23-37). D1 discloses that the expression of the marker gene is indicative of a regression (par. 12-13). D1 thus discloses all the technical features of claims 1, 14, and 49 in combination.
- 3.2 D2 discloses a method for diagnosing a granulocyte disorder (sterile inflammatory disease, ex. 10), by comparing the expression level of granulocyte selective markers (neutrophil mRNA species, ex. 10) of a subject with a reference (patient) in order to diagnose a disorder. D2 also discloses a method to identify a compound that alters the expression of the granulocyte marker in order to identify a therapeutic agent (ex. 5 and 6). D2 thus discloses all the technical features of claims 1 and 49 in combination.
- 3.3 Consequently in the light of D1 and D2 independent claims 1, 14 and 49 are not novel in the sense of Art. 33(2) PCT.
- 3.4 Due to the fact that D1 already discloses a marker gene whose expression is used in order to screen for a candidate compound for a therapeutic agent (par. 42) and as well discloses a marker gene whose expression depends on the stage of the disease (par. 13-14), the use of this marker to monitor the response to a treatment and to determine regression of a disorder are regarded as normal modifications of the method of D1 that the person skilled in the art would perform without an inventive step. Consequently the subject matter of the independent claims 28, 35 and 42 cannot be regarded as being inventive.
- 3.5 Thus for the reasoning given above the independent claims 1, 14, 28, 35, 42 and 49

do not fulfil the requirements of inventive step of Art. 33(3) PCT.

- 3.6 In the light of D1 and D2 dependent claims 2-13, 15-27, 29-34, 36-41 and 43-48 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step.
- 3.7 Additionally in the light of D3 (abstract), D4 (par. 344), and D5 (example 1) the subject matter of claims 1-60 do not meet the requirements of the PCT in respect of inventive step.
- 3.8 Consequently claims 1-60 do not fulfil the requirements of novelty and/or inventive step of Art. 33(2) and 33(3) PCT.
- 4 Irrespective of points raised above claims 61-69 relate to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the industrial applicability of the subject-matter of these claims (Article 34(4)(a)(I) PCT).